

SAFETY HEALTH AND ENVIRONMENTAL AFFAIRS JAN 6 1993

JAN 6 1993 ORIGINAI

MATERIAL SAFETY DATA SHEET

PRODUCT

FERRALYTE 8130 COAGULANT

Emergency Telephone Number Medical (708) 920-1510 (24 hours)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: FERRALYTE 8130 COAGULANT

DESCRIPTION: Aqueous solution of ferric sulfate and a cationic polyamine

polymer

NFPA 704M/HMIS RATING: 2/2 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER

O=Insignificant l=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)

CAS #

APPROX.%

Ferric sulfate

10028-22-5

40-70

SECTION 3 PRECAUTIONARY LABEL INFORMATION

WARNING: Causes eye injury and skin irritation. Do not get in eyes. Avoid contact with skin and clothing. Wear goggles or face shield when handling. Avoid prolonged or repeated breathing of vapor. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

SECTION 4 FIRST AID INFORMATION

EYES:

Immediately flush for at least 15 minutes while holding

eyelids open. Call a physician at once.

SKIN:

Immediately flush with water for at least 15 minutes.

For a large splash, flood body under a shower. Call a

physician at once.

INGESTION:

Do not induce vomiting. Give water. Call a physician.

INHALATION:

Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory

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SECTION 4 FIRST AID INFORMATION

(CONTINUED

depression and convulsions may be needed.

SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT:

Can cause severe irritation.

SKIN CONTACT:

May cause irritation with prolonged contact.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any

symptoms from exposure.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does

not identify any worsening of existing conditions.

SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS): LD = Greater than 5,000 mg/kg

ACUTE DERMAL TOXICITY (ALBINO RABBITS): LD = Greater than 2,000 mg/kg

PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):

SKIN IRRITATION INDEX DRAIZE RATING: 0.8/8.0 Slightly irritating

PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):

EYE IRRITATION INDEX DRAIZE RATING: 28.2/110.0 Moderately irritating

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Dark amber

SPECIFIC GRAVITY:

FORM: Liquid

ODOR: None

DENSITY:

11.8 lbs/gal.

1.42

ASTM D-1298

(pH (NEAT) =

Less than 1.0

ASTM E-70

VISCOSITY:

125 cps @ 71 Degrees F

ASTM D-2983

FLASH POINT:

Greater than 200 Degrees F (PMCC) ASTM D-93

NOTE: These physical properties are typical values for this product.

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: Greater than 200 Degrees F PMCC ASTM D-93

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SECTION 8 FIRE AND EXPLOSION INFORMATION

(CONTINUED)

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve NOx or SOx under fire conditions.

SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid alkaline materials (eg. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanides, sulfides, hypochlorites, chlorites) which can generate heat with splattering or boiling and the release of toxic fumes.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO_2 , SO_3 may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Respiratory protection is not normally needed since the volatility and toxicity are low. If significant mists or aerosols are generated, wear a NIOSH approved or equivalent respirator.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Wear impermeable gloves, boots, apron, and a face shield with chemical splash goggles. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton, and butyl (compatibility studies have not been performed. A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

SPILL CONTROL AND RECOVERY:

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SECTION 11 SPILL AND DISPOSAL INFORMATION

(CONTINUED)

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

As a hazardous liquid waste, it must be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to a licensed industrial waste landfill (Hazardous Waste Treatment, Storage and Disposal facility). A hazardous liquid waste can also be incinerated in accordance with local, state, and federal regulations.

SECTION 12 ENVIRONMENTAL INFORMATION

AQUATIC DATA:

- 96 hour static acute LC_{50} to Rainbow Trout = 6.4 mg/1
- 96 hour no observed effect concentration is 3.2 mg/l based on no mortality or abnormal effects.
- 48 hour static acute LC₅₀ to Daphnia Magna = 230 mg/l
- 48 hour no observed effect concentration is greater than 56 mg/l (lowest concentration tested) based on no mortality or abnormal effects.
- If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - CORROSIVE LIQUID, N.O.S.

CORROSIVE MATERIAL UN 1760

CONTAINS - FERRIC SULFATE

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

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SECTION 14 REGULATORY INFORMATION

(CONTINUED

FEDERAL REGULATIONS:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200: Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

Ferric sulfate - Irritant

Iron salts, soluble = TWA 1 mg/m³ ACGIH/TLV

Iron salts, soluble = TWA 1 mg/m³ OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

This product contains ferric sulfate, a Reportable Quantity (RQ) substance and if 2,400 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D. C. (1-800-424-8802).

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370): Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- -- Delayed (chronic) health hazard
- -- Fire hazard
- -- Sudden release of pressure hazard
- -- Reactive hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372): This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

U. S. EPA - OFFICE OF DRINKING WATER - ADDITIVES EVALUATION BRANCH: The USEPA has approved this product for use as a coagulation aid in the

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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

treatment of potable water. The maximum recommended product dosage limit is 240 ppm.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D: Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15/ formerly Sec. 307, 40 CFR 116/formerly Sec. 311: This product contains the following ingredient covered by the Clean Water Act:

Ferric sulfate - Section 311

Clean Air Act, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments): This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:

This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:

Regulated in those states using the TLV for iron salts and ferric sulfate as a criteria for listing.

SECTION 15 ADDITIONAL INFORMATION

None

SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

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SECTION 17 BIBLIOGRAPHY

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